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EXAMINER
MOORE JR, MICHAEL J

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/601,229	KAROL ET AL.
	Examiner	Art Unit	
	Michael J. Moore, Jr.	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 July 2007*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *12 and 24* is/are allowed.

6)☒ Claim(s) *1-10 and 13-22* is/are rejected.

7)☒ Claim(s) *11 and 23* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 July 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Drawings

1.   Replacement drawings were received on 7/18/07. These drawings are

acceptable and have been entered.

Specification

2.   The disclosure is objected to because it contains an embedded hyperlink and/or

other form of browser-executable code. Applicant is required to delete the embedded

hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Specifically, on page 10, line 2, there is a hyperlink that should be removed.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter, which the applicant regards as his invention.

4.   Claims **1-9 and 13-21** are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

Regarding claims **1-9**, on lines 7-8 of claim **1**, there is some confusion regarding

the phrase "said period of silence exceeds a predetermined time duration". Specifically,

it is unclear which period of silence is being referred to. On line 6, there are claimed

"periods of silence", and on line 7, there are claimed "one or more extended silence

periods". It is believed that the above should read "said extended silence period

exceeds a predetermined time duration" to be more clear. Claims **1-9** are therefore held

indefinite.

Similar reasoning follows for claims **13-21** as being held indefinite.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

6.   Claims **1, 8-10, 13, and 22** are rejected under 35 U.S.C. 102(e) as being

anticipated by Gregson (U.S. 7,072,305). *Gregson* teaches all of the limitations of the

specified claims with the reasoning that follows.

Regarding claim **1**, "a method for detecting a potential problem in the

transmission of a sequence of packets via an Internet Protocol (IP) network, the

transmission occurring from a signal origin point to a signal destination point" is

anticipated by the network monitoring and analysis between customer equipment 150,

160 (signal origin and destination points) via analyzers 110, 120, 140 of Figure 1 as

spoken of on column 4, lines 26-35.

"Examining an original packet sequence to be sent from the origin point, the

original packet sequence comprising periods of silence between packets to be

transmitted, to determine one or more extended silence periods wherein the period of

silence exceeds a predetermined time duration" is anticipated by analyzer unit 110 of

Figure 1 that detects (examining) the beginning and termination of silent period 510 (in

Figure 5) of the data stream as spoken of on column 8, lines 30-34.

"Introducing a keep-alive signal packet into each of the extended silence periods

thereby converting the original packet sequence into a modified packet sequence" is

anticipated by the injection of testing traffic (keep-alive signal) into the silent periods of

the data stream as spoken of on column 8, lines 35-38.

Lastly, "transmitting the modified packet sequence over the IP network; and

detecting whenever at least one packet of the modified packet sequence has not been

received at the signal destination point during a specified time interval" is anticipated by

the measurement of the packet loss (packet of sequence not received) over an interval

of time at a particular network location by the network administrator to detect a potential

network problem as spoken of on column 5, lines 36-40, as well as column 8, lines 14-

19.

Regarding claim **8**, "wherein the IP network is administered by a network

manager, and the method further comprises the step of notifying the network manager

of the potential problem" is anticipated by the reporting (notifying) of collected packet

loss data from analyzer unit 140 to network operation center 130 (network manager) of

Figure 1 as spoken of on column 6, lines 13-15.

Regarding claim **9**, "wherein a plurality of transmissions of sequences of packets

is sent via an identifiable routing path over the IP network, the routing path comprising

multiple IP network components" is anticipated by the route shown between customer

equipment 150, 160 over the Internet via analyzer units 110, 120 (components) as

shown in Figure 1, as well as the service provider administrator accessing, monitoring, and analyzing the network performance via the Internet as spoken of on column 4, lines 26-29.

Regarding claim **10**, "a method for detecting a potential problem in the transmission of a sequence of packets via an Internet Protocol (IP) network, the transmission occurring from a signal origin point to a signal destination point" is anticipated by the network monitoring and analysis between customer equipment 150, 160 (signal origin and destination points) via analyzers 110, 120, 140 of Figure 1 as spoken of on column 4, lines 26-35.

"Introducing, at a fixed period, a keep-alive signal packet into an original packet sequence, thereby converting the original packet sequence into a modified packet sequence" is anticipated by the injection of testing traffic (keep-alive signal) into the silent periods of the data stream as spoken of on column 8, lines 35-38.

Lastly, "transmitting the modified packet sequence over the IP network; and detecting whenever at least one packet of the modified packet sequence has not been received at the signal destination-point during a specified time interval" is anticipated by the measurement of the packet loss (packet of sequence not received) over an interval of time at a particular network location by the network administrator to detect a potential network problem as spoken of on column 5, lines 36-40, as well as column 8, lines 14-19.

Regarding claim **13**, "a system for detecting a potential problem in the transmission of a sequence of packets via an Internet Protocol (IP) network, the

transmission occurring from a signal origin point to a signal destination point" is anticipated by the network monitoring and analysis between customer equipment 150, 160 (signal origin and destination points) via analyzers 110, 120, 140 (system) of Figure 1 as spoken of on column 4, lines 26-35.

"Means for examining an original packet sequence to be sent from the origin point, the original packet sequence comprising periods of silence between packets to be transmitted, to determine one or more extended silence periods wherein the period of silence exceeds a predetermined time duration" is anticipated by analyzer unit 110 (means) of Figure 1 that detects (examining) the beginning and termination of silent period 510 (in Figure 5) of the data stream as spoken of on column 8, lines 30-34.

"Means for introducing a keep-alive signal packet into each of the extended silence periods thereby converting the original packet sequence into a modified packet sequence" the injection of testing traffic (keep-alive signal) into the silent periods of the data stream by analyzer unit 110 (means) as spoken of on column 8, lines 35-38.

"Means for transmitting the modified packet sequence over the IP network" is anticipated by the injecting of traffic over the link by analyzer unit 110 as spoken of on column 8, lines 44-46.

Lastly, "means for detecting whenever at least one packet of the modified packet sequence has not been received at the signal destination point during a specified time interval" is anticipated by the measurement of the packet loss (packet of sequence not received) over an interval of time at a particular network location by the network

administrator (means) to detect a potential network problem as spoken of on column 5, lines 36-40, as well as column 8, lines 14-19.

Regarding claim **22**, "a system for detecting a potential problem in the transmission of a sequence of packets via an Internet Protocol (IP) network, the transmission occurring from a signal origin point to a signal destination point" is anticipated by the network monitoring and analysis between customer equipment 150, 160 (signal origin and destination points) via analyzers 110, 120, 140 (system) of Figure 1 as spoken of on column 4, lines 26-35.

"Means for introducing, at a fixed period, a keep-alive signal packet into an original packet sequence, thereby converting the original packet sequence into a modified packet sequence" is anticipated by the injection of testing traffic (keep-alive signal) into the silent periods of the data stream by analyzer unit 110 (means) as spoken of on column 8, lines 35-38.

"Means for transmitting the modified packet sequence over the IP network" is anticipated by the injecting of traffic over the link by analyzer unit 110 as spoken of on column 8, lines 44-46.

Lastly, "means for detecting whenever at least one packet of the modified packet sequence has not been received at the signal destination point during a specified time interval" is anticipated by the measurement of the packet loss (packet of sequence not received) over an interval of time at a particular network location by the network administrator (means) to detect a potential network problem as spoken of on column 5, lines 36-40, as well as column 8, lines 14-19.

Allowable Subject Matter

7.   Claims **12 and 24**, as *amended*, are allowable over the prior art of record.

8.   Claims **11 and 23** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9.   Claims **2-7 and 14-21** would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10.   The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim **2**, *Gregson* teaches the method of claim **1**. *Gregson* as well as the other prior art of record fail to teach where the original packet sequence comprises RTP packets and the keep-alive signal comprises RTCP packets.

Regarding claims **3-7**, these claims are further limiting to claim **2** and are thus also allowable over the prior art of record.

Regarding claim **11**, *Gregson* teaches the method of claim **1**. *Gregson* as well as the other prior art of record fail to teach where the keep-alive signal comprises RTCP packets.

Regarding *amended* claim **12**, *Belanger et al. (U.S. 2003/0137938) (hereinafter "Belanger")* teaches the notification of network congestion (problem) to users participating in communication between endpoints 101, 102 (origin and destination points) as shown in Figure 1 and spoken of on page 2, paragraph 14.

Belanger also teaches the notification mechanism that permits users to receive notice of presence of the congestion as spoken of on page 2, paragraph 14, lines 10-14.

Belanger, Gregson, and the other prior art of record fail to teach, "introducing a keep-alive signal packet into silence periods of an original packet sequence, thereby converting the original packet sequence into a modified packet sequence, wherein the keep-alive signal packet consists of a source description (SDES) RTCP packet with a source count (SC) of 0" in combination with the other limitations of claim **12**.

Regarding claim **14**, *Gregson* teaches the system of claim **13**. *Gregson* as well as the other prior art of record fail to teach where the original packet sequence comprises RTP packets and the keep-alive signal comprises RTCP packets.

Regarding claims **15-21**, these claims are further limiting to claim **14** and are thus also allowable over the prior art of record.

Regarding claim **23**, *Gregson* teaches the system of claim **22**. *Gregson* as well as the other prior art of record fail to teach where the keep-alive signal comprises RTCP packets.

Regarding claim **24**, *Belanger* teaches the notification of network congestion (problem) to users participating in communication between endpoints 101, 102 (origin and destination points) as shown in the network 100 (system) of Figure 1 and spoken of on page 2, paragraph 14.

Belanger also teaches endpoint 101 (means) that detects the dropping of packets (not been received) due to congestion by detecting holes in the packet sequence numbers as spoken of on page 2, paragraph 16, lines 8-19.

Belanger also teaches the notification mechanism (means) that permits users to receive notice of presence of the congestion as spoken of on page 2, paragraph 14, lines 10-14.

Belanger, Gregson, and the other prior art of record fail to teach, "means for introducing a keep-alive signal packet into silence periods of an original packet sequence, thereby converting the original packet sequence into a modified packet sequence, <u>wherein the keep-alive signal packet consists of a source description (SDES) RTCP packet with a source count (SC) of 0</u>" in combination with the other limitations of claim **24**.

Response to Arguments

11.   Applicant's arguments with respect to *amended* claims **12 and 24** have been fully considered and are persuasive. The rejections of these claims have been withdrawn.

12.   Applicant's arguments with respect to claims **1, 8-10, 13 and 22** have been considered but are moot in view of the new ground(s) of rejection provided above.

Conclusion

13.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. James et al. (U.S. 7,272,552), Petty (U.S. 7,072,828), and Bastin (U.S. 6,901,069) are other references considered pertinent to this application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Moore, Jr. whose telephone number is (571) 272-3168. The examiner can normally be reached on Monday-Friday (7:30am - 4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Wing F. Chan can be reached at (571) 272-7493. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael J. Moore, Jr.
Examiner
Art Unit 2616

mjm HM

WING CHAN   10/1/07
SUPERVISORY PATENT EXAMINER